

REMARKS

This is in response to the Office Action of March 22, 2007. Claims 1, 4, 6-14, 16, 17, 19-22, 48-59 and 65 are pending in the present application, of which claim 49 is independent. Claims 56-59 were previously withdrawn.

In the Office Action, the Examiner 1) rejected claim 49 under 35 USC 102(b) as being anticipated by U.S. Patent No. 5,938,940 to Zuk; 2) rejected claims 1, 4, 6-12, 16-17, 50-51, 54 and 55 under 35 USC 103 as being unpatentable over Zuk in view of U.S. Patent No. 6,168,653 to Myers or US 4,326,957 to Rosenberg or US 5,269,917 to Stankowski; 3) rejected claims 13-14 and 52 under 35 USC 103 as being unpatentable over Zuk in view of Stankowski and in further view of US 4,157,967 to Meyst; 4) rejected claim 65 under 35 USC 103 as being unpatentable over Zuk in view of Stankowski and in further view of US 6,364,864 to Mohiuddin; 5) rejected claims 19-21 and 48 under 35 USC 103 as being unpatentable over US 4,009,714 to Hammer in view of US 4,906,260 to Emheiser; and 6) rejected claim 22 under 35 USC 103 as being unpatentable over US 4,009,714 to Hammer in view of US 4,906,260 to Emheiser and in further view of 2001/0009756 to Hei.

Applicants respectfully submit that the pending claims are not anticipated and would not have been obvious in view of the prior art as set forth in detail below.

Claim 49 Is Not Anticipated by U.S. Patent No. 5,938,940 to Zuk

Applicants turn first to the rejection of independent claim 49 and the respective dependent claims under 35 USC 102(b) as being anticipated by U.S. Patent No. 5,938,940 to Zuk. In order to further distinguish claim 49 over the cited references,

claim 49 has been amended to include the subject matter of dependent claim 54.

Specifically, amended claim 49 is directed to a flow-through device for removing selected compounds from a liquid. Amended claim 49 requires, among other things, a housing comprising a pair of side walls and a peripheral end wall defining a chamber and a removal medium located within the chamber between the walls. Amended claim 49 further requires the medium including a peripheral end surface terminating interior to the peripheral end wall of the housing wherein the removal medium peripheral end is in contact with a liquid impermeable barrier wherein the liquid impermeable barrier comprises an injectable sealant and wherein the liquid impermeable barrier is located between the peripheral end surface of the removal medium and the peripheral end wall of the housing.

Applicants submit that Zuk does not teach or suggest a flow-through device as presently claimed. In particular, Zuk does not teach or suggest a flow-through device comprising a liquid impermeable barrier wherein the liquid impermeable barrier comprises an injectable sealant.

In contrast, Zuk describes a filtration device 23 that consists of an inlet section 1 and an outlet section 2 sealed together, and multiple filter elements (layers) 3, 4, 5 and 6 contained within the device. The outer periphery of filter element 6 (bottom layer in Figure 2 of Zuk) and the outer periphery of filter element 3 (top layer in Figure 2 of Zuk) are compression-fitted into the outlet section of the filtration device. The periphery of the "middle" filter elements 4 and 5 are compressed between the top and bottom filter elements 3 and 6 and also "sandwiched" between seal rings 7, 8 and 9. As seen in Figures 1 and 2 of Zuk, the seal rings are not comprised of an injectable sealant as

presently claimed, but instead, are comprised of a solid, semi-rigid ring of material which are sandwiched between the various filter layers and compression-fitted into the outlet portion 2 of the device.

Further, Applicants submit that it would not have been obvious to one skilled in the art to use the injectable sealant as presently claimed in the Zuk device because the arrangement of the various filter elements and seal rings in Zuk requires the seal rings to be rigid enough to substantially retain their shape while being compressed by the outlet portion 2 to hold the various filter elements in position within the device. For example, due to the “sandwich” arrangement of the layers in Zuk, each of the filter elements and seal rings are inter-dependent on each other for support and to securely remain in position within the device. Because of the substantially fluid nature of the presently claimed injectable sealant when it is introduced into the housing of a filtration device, it could not be used in the manner described in Zuk – that is, it could not be sandwiched among the various filter elements 3, 4, 5 and 6 and be compressed by the outlet portion 2 of Zuk while maintaining its shape and structure and hold the various filter elements properly in position within the filter device. In other words, one could not use the claimed injectable sealant in place of the solid and semi-rigid seal rings and successfully achieve the structure described in Zuk.

Thus, for at least these reasons, Applicants submit that Zuk does not teach or suggest a flow-through device comprising a liquid impermeable barrier wherein the liquid impermeable barrier comprises an injectable sealant and accordingly, claim 49 is not anticipated and would not have been obvious over the Zuk '940 patent.

Claims 1, 4, 6-12, 16-17, 50-51, 54 and 55 Would Not Have Been Obvious Over The Cited References

Next, Applicants turn to the rejection of claims 1, 4, 6-12, 16-17, 50-51, 54 and 55 under 35 USC 103 as being unpatentable over Zuk in view of U.S. Patent No. 6,168,653 to Myers or US 4,326,957 to Rosenberg or US 5,269,917 to Stankowski. Applicants note that claims 1, 4, 6-12, 16-17, 50-51, 54 and 55 are dependent on claim 49 (and, as noted above, claim 54 has been cancelled herein). For the reasons already stated hereinabove, amended claim 49 is not anticipated or made obvious by the cited references and accordingly, Applicants submit that dependent claims 1, 4, 6-12, 16-17, 50-51 and 55 (which are dependent on amended claim 49) are also not anticipated or made obvious by the cited references.

Further, Myers, Rosenberg and/or Stankowski do not teach or suggest any of the subject matter missing from the Zuk patent and are not properly combinable with Zuk to render the claimed invention obvious. Accordingly, one skilled in the art would not have been motivated to combine the teaching of the Zuk patent with Myers, Rosenberg and/or Stankowski to achieve the claimed flow through device.

Claims 13-14 and 52 Would Not Have Been Obvious over Zuk in view of Stankowski and in further view of US 4,157,967 to Meyst

Next, Applicants turn to the rejection of claims 13-14 and 52 under 35 USC 103 as being unpatentable over Zuk in view of Stankowski and in further view of US 4,157,967 to Meyst. Applicants note that claims 13-14 and 52 are dependent on amended claim 49. For the reasons already stated hereinabove, amended claim 49 is not anticipated or made obvious by the cited references and accordingly, Applicants

submit that dependent claims 13-14 and 52 (which are dependent on claim 49) are also not anticipated or made obvious by the cited references.

Further, Stankowski and/or Meyst do not teach or suggest any of the subject matter missing from the Zuk patent and are not properly combinable with Zuk to render the claimed invention obvious. Accordingly, one skilled in the art would not have been motivated to combine the teaching of the Zuk patent with Stankowski and/or Meyst to achieve the claimed flow through device.

Claim 65 Would Not Have Been Obvious Over Zuk in view of Stankowski and in Further View of US 6,364,864 to Mohiuddin

Next, Applicants turn to the rejection of claim 65 under 35 USC 103 as being unpatentable over Zuk in view of Stankowski and in further view of US 6,364,864 to Mohiuddin. Applicants note that claim 65 is dependent on amended claim 49. For the reasons already stated hereinabove, amended claim 49 is not anticipated or made obvious by the cited references, and accordingly, Applicants submit that claim 65 (which is dependent on claim 49) is also not anticipated or made obvious by the cited references.

Further, Stankowski and/or Mohiuddin do not teach or suggest any of the subject matter missing from the Zuk patent and are not properly combinable with Zuk to render the claimed invention obvious. Accordingly, one skilled in the art would not have been motivated to combine the teaching of the Zuk patent with Stankowski and/or Mohiuddin to achieve the claimed flow through device.

**Claims 19-21 and 48 Would Not Have Been Obvious Over US 4,009,714 to Hammer
In View of US 4,906,260 to Emheiser**

Next, Applicants turn to the rejection of claims 19-21 and 48 under 35 USC 103 as being unpatentable over US 4,009,714 to Hammer in view of US 4,906,260 to Emheiser. In response, Applicants have amended claim 19 to be dependent on claim 49.

As noted above, amended claim 49 requires, among other things, a flow-through device comprising a housing which includes a pair of side walls and a peripheral end wall defining a chamber. A removal medium is located within the chamber between the walls, and the medium includes a peripheral end surface terminating interior to the peripheral end wall of the housing. Amended claim 49 further requires that the removal medium peripheral end is in contact with a liquid impermeable barrier, wherein the liquid impermeable barrier comprises an injectable sealant and wherein the liquid impermeable barrier is located between the peripheral end surface of the removal medium and the peripheral end wall of the housing.

It is respectfully submitted that Hammer does not teach or suggest the flow-through device as required by amended claim 49. In particular, Hammer does not teach or suggest a flow-through device comprising a removal medium located within a housing chamber wherein the medium includes a peripheral end surface terminating interior to a peripheral end wall of a housing. Further, Hammer does not teach or suggest a flow through device wherein a peripheral end of a removal medium is in contact with a liquid impermeable barrier wherein the liquid impermeable barrier comprises an injectable sealant and wherein the liquid impermeable barrier is located between the peripheral end surface of a removal medium and a peripheral end wall of a

housing as required by amended claim 49. For at least these reasons, amended claim 49 is not anticipated or made obvious by the cited references. Accordingly, Applicants submit that claim 19 (which is now dependent on amended claim 49) is also not anticipated or made obvious by the Hammer.

Further, Emheiser does not teach or suggest any of the subject matter missing from the Hammer patent and is not properly combinable with Hammer to render the claimed invention obvious. Accordingly, one skilled in the art would have been motivated to combine the teaching of the Hammer patent with Emheiser to achieve the claimed flow through device.

Claim 22 Would Not Have Been Obvious Over US 4,009,714 to Hammer In View Of US 4,906,260 to Emheiser and In Further View of 2001/0009756 to Hei

Finally, Applicants turn to the rejection of claim 22 under 35 USC 103 as being unpatentable over US 4,009,714 to Hammer in view of US 4,906,260 to Emheiser and in further view of 2001/0009756 to Hei. Applicants note that claim 22 is dependent on amended claim 49. For the reasons already stated above, amended claim 49 is not anticipated or made obvious by the Hammer patent and therefore, claim 22 (which is dependent on amended claim 49) is also not anticipated or made obvious by the Hammer patent.

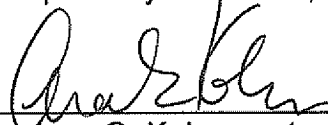
Further, Hei and/or Emheiser do not teach or suggest any of the subject matter missing from the Hammer patent and are not properly combinable with Hammer to render the claimed invention obvious. Accordingly, one skilled in the art would not have been motivated to combine the teaching of Hammer with Hei and/or Emheiser to achieve the claimed flow through device.

Conclusion

For the reasons set forth above, Applicants submit that the claims are not anticipated or obvious in view of the prior art, and are now in condition for allowance. Reconsideration and allowance of such claims are respectfully requested.

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Respectfully submitted,



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